

Amendments to the Claims:

This listing of claims replaces all prior listings, and versions, of claims in the application.

Listing of Claims:

1. (Currently Amended) ~~In~~ Apparatus for a multi-user communication system defining a radio link upon which both closed-loop, power-controlled communication services and best-effort communication services are effectuable thereon between a sending station and at least a first receiving station, ~~an improvement of~~ said apparatus for facilitating allocation of power levels of at least a first best-effort communication signal communicated upon the radio link pursuant to effectuation of at least a first best-effort communication service between the sending station and the at least the first receiving station, said apparatus comprising:

a storage element for storing indicia associated with prior transmit power levels at which closed-loop, power-controlled communication signals have previously been sent upon the radio link;

a predictor coupled to receive to said storage element for accessing the indicia associated with prior transmit power levels at which the closed-loop, power-controlled communication signals sent upon the radio link to effectuate the guaranteed QoS communication services are transmitted, said predictor for predicting subsequent power levels at which the closed-loop, power-controlled communication signals shall subsequently be transmitted;

an allocator coupled to said predictor to receive indications of predictions made thereat and coupled to receive indicia associated with present power levels at which the closed-loop, power-controlled signals are sent, said allocator for allocating the power levels at which subsequently to transmit the at least the first best-effort communication signal, the power levels allocated being related to a ratio of a link allocation interval to a power control command interval, and said allocator further for selectively reallocating the power levels at which subsequently to transmit the at least the

first best-effort communication signal, reallocation made in manners to reduce the power levels at which subsequently to transmit the at least the first best-effort communication signal.

2-6. (Canceled)

7. (Currently Amended) The apparatus of claim 6 1 wherein the power levels are allocated by said allocator are at least step-wise proportional to the ratio of the link allocation interval to the power command control interval.

8. (Currently Amended) The apparatus of claim 2 1 wherein predictions of the subsequent power levels at which the closed-loop, power-controlled communication signals shall subsequently be transmitted are made pursuant to an autoregressive process.

9. (Original) The apparatus of claim 8 wherein the predictions are successively altered responsive to successive indicia associated with the prior power levels measured at successive intervals.

10. (Original) The apparatus of claim 9 wherein a plurality of closed-loop, power-controlled communication signals are concurrently sent upon the radio link to effectuate a plurality of closed-loop, power-controlled communication services, and wherein predictions made by said predictor are made responsive to indicia associated with the transmit power levels of each of the plurality of guaranteed QoS communication signals.

11. (Original) The apparatus of claim 10 wherein predictions made by said predictor of the subsequent power levels at which the closed-loop, power-controlled

communication signals shall subsequently be transmitted comprise predictions of maximum power levels at which each of the closed-loop, power-controlled communication signals shall subsequently be transmitted.

12. (Currently Amended) The apparatus of claim 2 1 wherein the at least the first best-effort communication signal comprises a plurality of best-effort communication signals and wherein said allocator allocates the power levels at which subsequently to transmit each of the plurality of the best-effort communication signals.

13. (Original) The apparatus of claim 1 wherein the multi-user communication system comprises a CDMA (code-division, multiple-access) cellular communication system, wherein the radio link comprises a downlink, the sending station comprising a base transceiver station forming part of a system network, and the at least the first receiving station comprising a first mobile station and at least a second mobile station, and wherein said predictor and said allocator is positioned at the system network of the CDMA cellular communication system.

14. (Original) The apparatus of claim 13 wherein the closed-loop, power-controlled communication signals sent upon the down link to effectuate the closed-loop, power-controlled services are power-controlled pursuant to a closed-loop power control scheme, wherein the at least the first best-effort communication signal comprises at least a first time-multiplexed signal sent on a shared channel defined upon the forward link and wherein said allocator allocates the power levels at which subsequently to transmit the at least the first time-multiplexed signal.

15. (Currently Amended) ~~In a~~ A method for communicating in a multi-user communication system defining a radio link upon which both closed-loop, power-

controlled communication services and best-effort communication services are effectuable thereon between a sending station and at least a first receiving station, ~~an~~ ~~improvement of a~~ said method for facilitating allocation of power levels of at least a first best-effort communication signal communicated upon the radio link pursuant to effectuation of at least a first best-effort communication service between the sending station and the at least the first receiving station, said method comprising:

detecting indicia associated with prior transmit power levels at which closed-loop, power-controlled communication signals have previously been sent upon the radio link to effectuate the closed-loop, power-controlled communication services are transmitted;

predicting subsequent power levels at which the closed-loop, power-controlled communication signals shall subsequently be transmitted responsive to detections made during said operation of detecting and

allocating the power levels at which subsequently to transmit the at least the first best-effort communication signal responsive to predictions made during said operation of predicting, the power levels allocated being related to a ratio of a link allocation interval to a power control interval.

16. (Canceled)

17. (Currently Amended) The method of claim ~~16~~ 15 wherein predictions made during said operation of predicting are responsive, at least in part, to values of the indicia associated with the prior power levels.

18. (Original) The method of claim 17 wherein said operation of predicting comprises performing an auto-regression procedure upon indicia of successive prior power levels.

Appl. No. 09/966,868
Amdt. dated 1 Nov. 2004
Reply to Office Action of 30 Jul. 04

19. (Currently Amended) The method of claim 16 15 further comprising the operation of selectively reallocating the power levels allocated during said operation of allocating, thereby to reduce selectively the power levels.

20. (Canceled)